

Fig. 1a

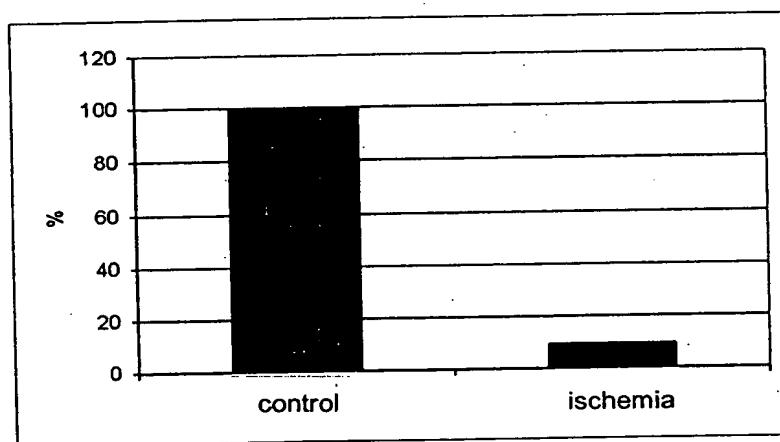


Fig. 1b

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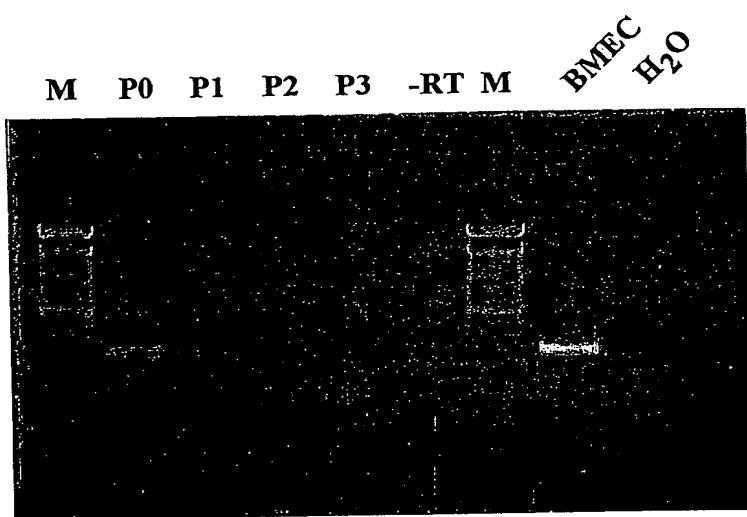


Fig. 2

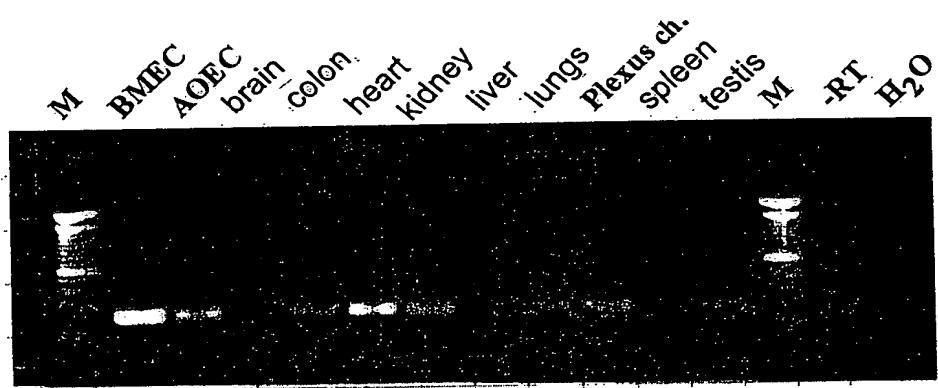


Fig. 3

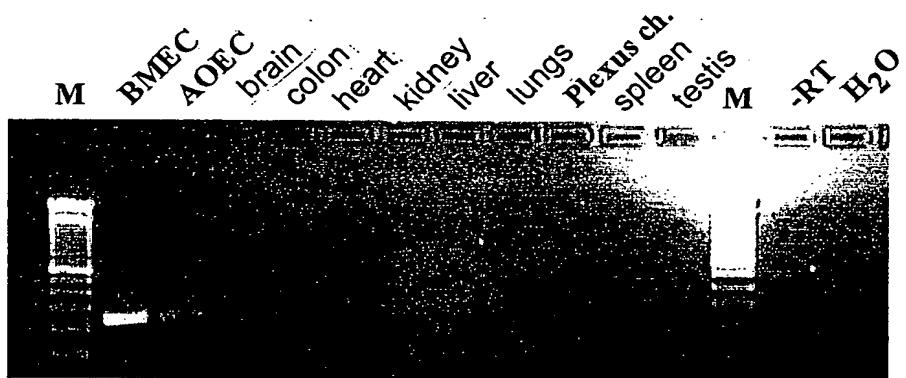


Fig. 4

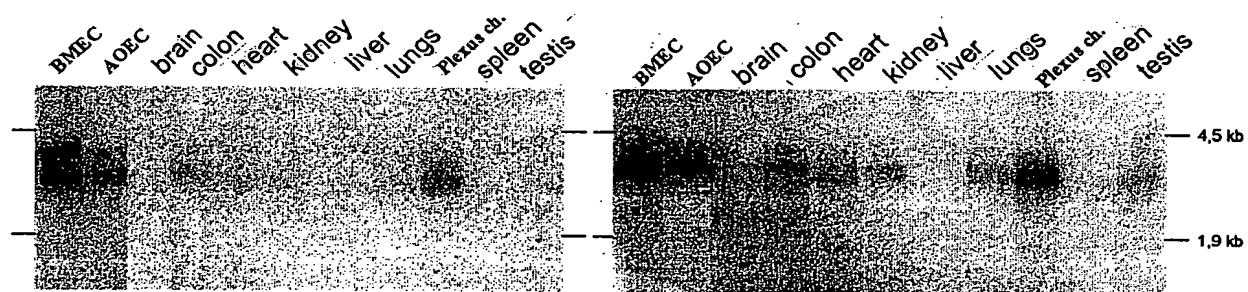


Fig. 5

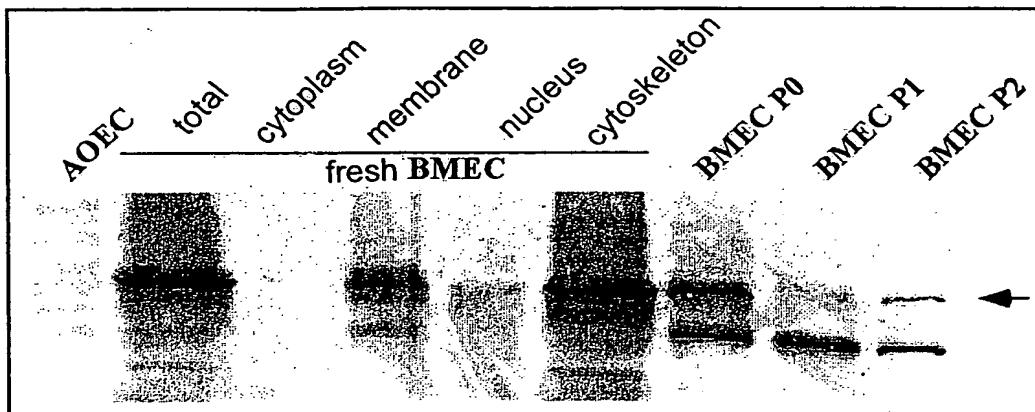


Fig. 6

Human pig mouse	MLVLLAGIFVVHIATVIMLFVSTIANWLVSNTVDASGLWKNCNISCSDSLSSYASEDA 60 MLVLLAGIFVVHIATVVMLFVCTIANWVVSAGQGSVGLWKNCNTSAGCTDTLLYGGEDA 60 MLVLLAGLFLVVHIATAIMLFVSTIANVWMVADYANASVGLWKNCCTGGNCDGSSLGNEADA 60 *****:*****.:*****.*****:***: . .*****. . * .: * ..***
Human pig mouse	LKTVQAFMILSIIIFCVIALLVVFQLFTMEKGNRFFLSGATTLCWLCLILVGVIYTSHY 120 LKSVQAFMILSIIIFSVVSLVVVFQLFTMEKGNRFFLSGATMLCWLCIMVGASVYTHHY 120 IKAVQAFMILSIIIFSIIISLVVVFQLFTMEKGNRFFLSGSTMVCWLCLILVGVIYTSHY 120 : :*****. : : : :*****. : : : :*****. : * *****. : * : * ***
Human pig mouse	ANRDGTQY---HHGYSYILGWICFCFSIIGVLVLRKK 157 ANSSKNQYSASHHGYSFILAWICFCFSIIGVLVLRKK 160 AHSEGNFNSSSHQGYCFILTWCFCFSIIGILYMLVRKK 160 *: . . . : * * *****. : * : * ***

Fig. 7

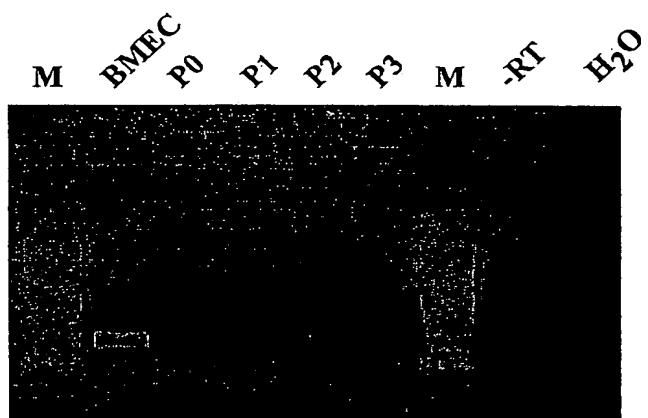


Fig. 8

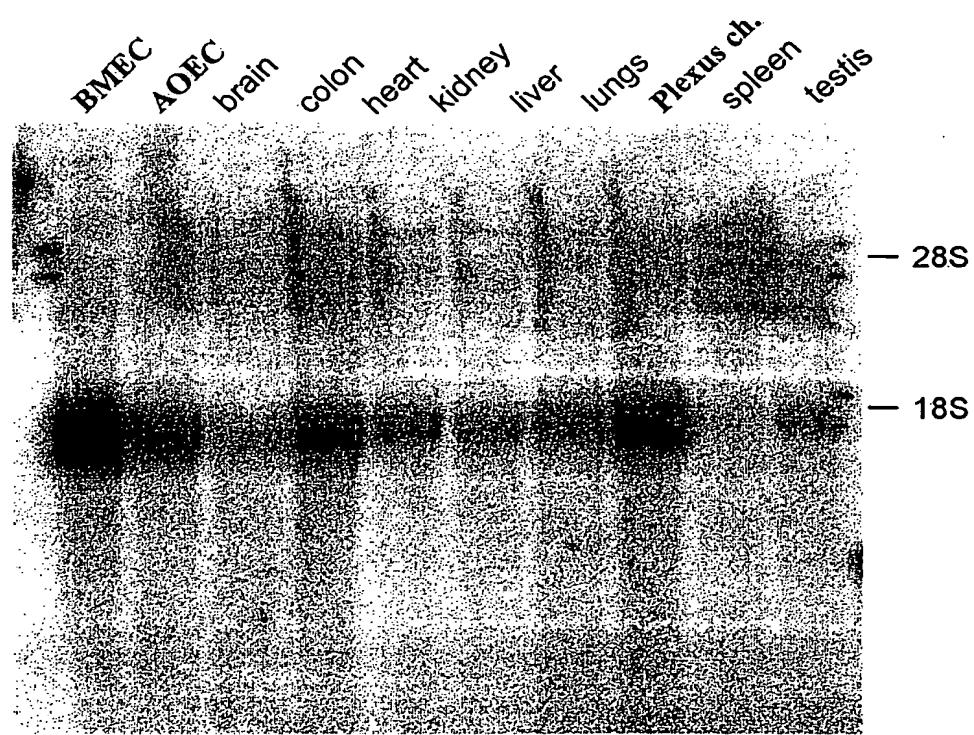


Fig. 9

Fig. 10

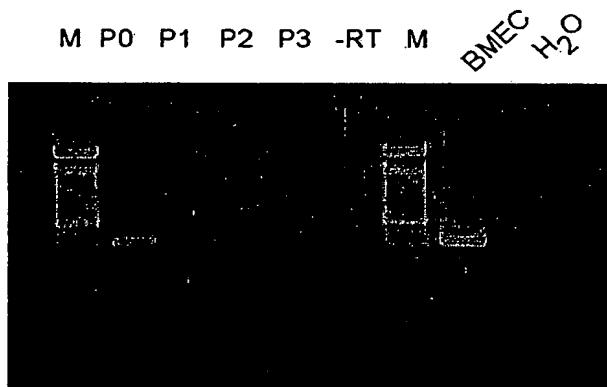


Fig. 11

MGNQVEKLTH	LSYKE <u>VPTAD</u>	<u>PTGVDRDDGP</u>	RIGVSYIFSN	DDEDVEPQPP
PQGPDGGLP	DGGDGPPPPQ	PQPYDPR <u>LHE</u>	<u>VECSVFYRDE</u>	<u>CIYOKSFAPG</u>
<u>SAALSTYTPE</u>	<u>NLLNKCKPGD</u>	LVEFVSQAQY	PHWAVYVGNF	QVVHLHRLEV
INSFLTDASQ	<u>GRRGRVVNDL</u>	<u>YRYKPLSSSA</u>	VVRNALAHVG	<u>AKERELSWRN</u>
<u>SESFAAWCRY</u>	GKREFKIGGE	<u>LRIGKQPYRL</u>	<u>QIQLSAQRSH</u>	<u>TLEFQSLEDL</u>
<u>IMEKRRNDQI</u>	GRAAVLQELA	THLHPAEPEE	GDSNVARTTP	PPGRPPAPSS
EEEDGEAVAH				

Fig. 12

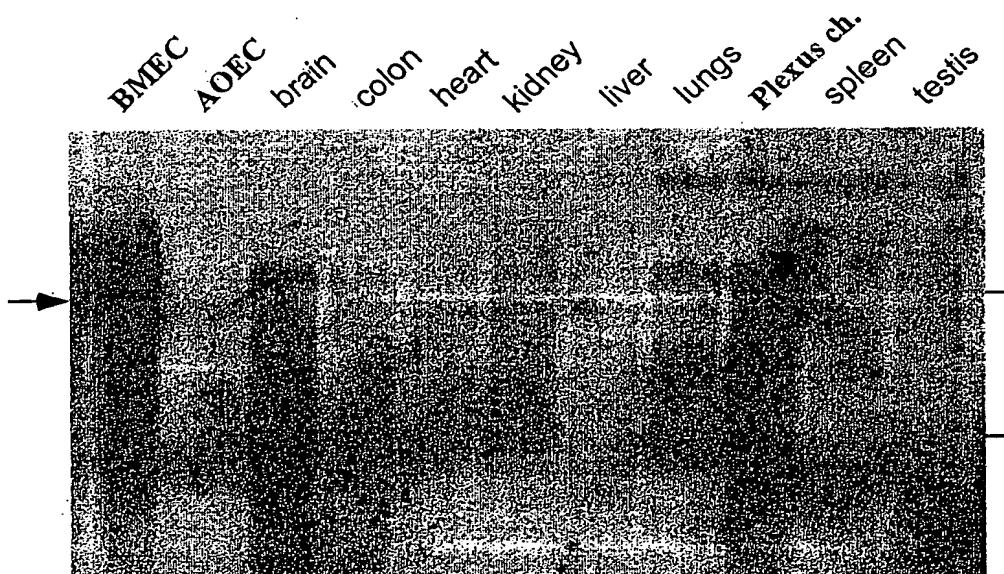


Fig. 13

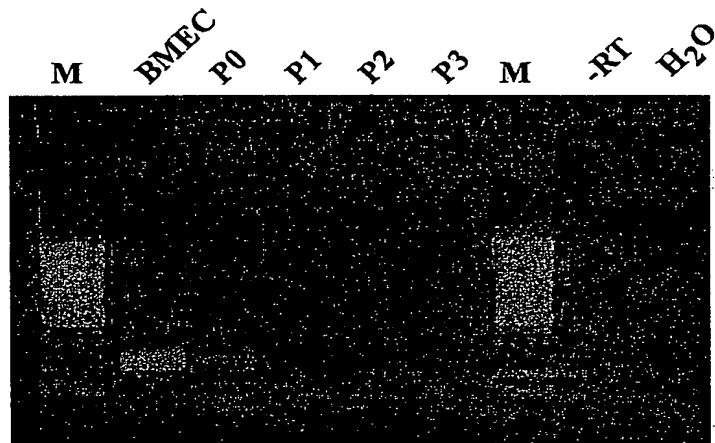


Fig. 14

NSE2	MGNQVEKLTHLSYKEVPTADPTGVDRDDGPRIGVSYIFSNDDEDVEPQPPPQGPQDGGGLP	60
NSE1	MGNQLDRITHLNSELPTGDPGSGIEKDE-LRVGVAYFFSDDEEDLDERGQPDKFVKAPP	59
	*****:***:***.*.*:***.*:***:***:***: . * : . . *	
NSE2	DGGDGPPPPQPQP----YDPRLHEVECSVFYRDECIFYQK-SFAPGSAALSTYT PENLLNK	115
NSE1	GCTPCPESPSRHQHLLHQVLNETQFSAFRGQECIFSKVSGGPQGADLSVYAVTALPAL	119
	. * .*. : : *:*. : *.* :***:.* * .* .* ***.*: *	
NSE2	CKPGDLVEFVS-----QAQYPHWAVYVGNFQVVHLRLEVINSLFTDASQGRGRVNN	168
NSE1	CEPGDLLELLWLQPAPEPPAPAPAPHWAVYVGGGQIILHQGEIRQDSLYEAGAANVGRVNN	179
	*:*****:***: * *****. *:***: *: . * :*. .. *****	
NSE2	DLYRYKPLSSSAVRNALAHVGAKEREL3WRNSESFAAWCRYGKREFKIGGELRIGKQP-	227
NSE1	SWYRYRPLVAELVVQNACGHGLKSEEICWTNSEFAAWCRFGKREFKAGGEVPAGTQPP	239
	. ***:*** : . **:*** .*: * .* :* *****:*****:****: * .**	
NSE2	---YRLQIQLSAQRSHTLEFQSLEDLIMEKRRNDQIGRAAVLQELATHLHPAEPEEGDSN	284
NSE1	QQQYYLKVLGENKVHTARFHSLEDIKEKR RIDASGRLRVLQELADLVDDKE-----	292
	* *:***: . : *:***:*****:*****: * *:*****: . * .. .	
NSE2	VARTTPPPGRPPAPSSEEEEDGEAVAH	310
NSE1	-----	

Fig. 15

MGNQVEKLTHLSYKEVPTADPTGVDRDDGPRIGVSYIFSNDDEDVEPQPP 50
----- ++++++
PQGPDGGLPDGGDPPPPQQPYDPRLHEVECSVFYRDECIFYQKSFAPG 100

SAALSTYTPENLLNKCKPGDLVEFVSQAQYPHWAVYVGNFQVVHLHRLEV 150

INSFLTDASQGRRGRVVNDLYRYKPLSSAVVRNALAHVGAKERELSWRN 200

SESFAAWCYRGKREFKIGGELRIGKQPYRLQIQLSAQRSHTLEFQSLEDL 250

IMEKRRNDQIGRAAVLQEELATHLHPAEPEEGDSNVARTTPPPGRPPAPSS 300
----- ++++++
EEEDGEAVAH 310

++++++ possible PEST sequences
----- poor PEST sequences

Fig. 16

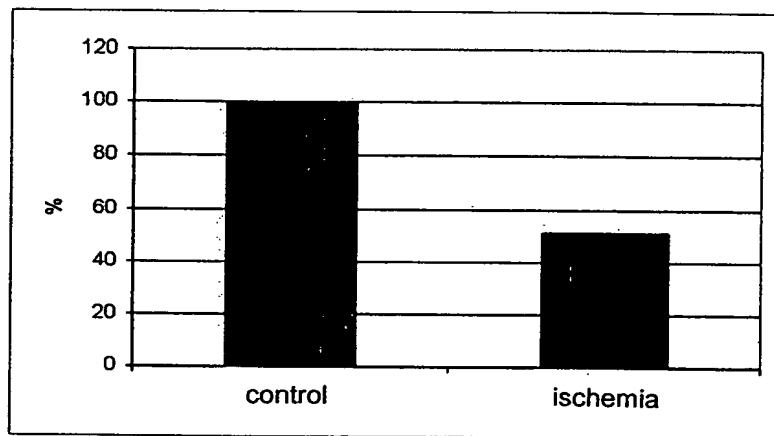


Fig. 17

MAALAPLPPPL PAQLK**SIQHH** **LRTAQEHDKR** DPVVAYYCRL **YAMQTGMKID**
SKTPECRKFL **SKLMDQLEAL** **KKQLGDNEAI** TQEIVGCAHL ENYALK**MFLY**
ADNEDRAGRF **HKNMIKSFYT** ASLLIDVITV FGELETDENVK HRKYARWKAT
 YIHNCNKNGE TPQAGPVGIE EDNDIEENED AGAASLPTQP TQPSSSTYD
 PSNMPSGNYT GIQIPPGAH A PANTPAEVPH STGVASNTIQ PTPQTIPAID
 PALFNTISQG DVRL**TPEDFA** RAQKYCKYAG SALQYEDVST AVQNLQKALK
LLTTGRE

Fig. 18

human	MAALAPLPPPLPAQLKSIQHHLRTAQEHDKRDPVVAYYCRLYAMQTGMKIDS	KTPECRKFL 60
mouse	MAALAPLPPPLPAQFKSIQHHLRTAQEHDKRDPVVAYYCRLYAMQTGMKIDS	KTPECRKFL 60
*****:*****:*****:*****:*****:*****:*****:*****:*****:		
human	SKLMDQLEALKKQLGDNEAITQEIVGCAHLENYALKMFLYADNEDRAGRF	HKNMIKSFYT 120
mouse	SKLMDQLEALKKQLGDNEAVTQEIVGCAHLENYALKMFLYADNEDRAGRF	HKNMIKSFYT 120
*****:*****:*****:*****:*****:*****:*****:*****:*****:		
human	ASLLIDVITVFGELTDENVKHRKYARWKATYIHNCNKNGETPQAGPVGIEED	NDIEENED 180
mouse	ASLLIDVITVFGELTDENVKHRKYARWKATYIHNCNKNGETPQAGPVGIEEE	NDVEENED 180
*****:*****:*****:*****:*****:*****:*****:*****:*****:*****:		
human	AGAASLPTQPTQPSSTYDPSNMPSGNYTGIQIPPGAHAPANTPAEVPH	STGVASNTIQ 240
mouse	VGATSLPTQPPQPSSSAYDPSNLAPGSYSGIIPPGAHAPANTPAEVPH	STGVTSNAVQ 240
.***:*****.*****:*****:...*:*****:*****:*****:*****:*****:*****:		
human	PSPQTVPAAAPAVDPDLY-TASQGDIRLTPEDFARAQKYCKYAGSALQ	YEDVSTAVQNLQK 297
mouse	YEDVSTAVQNLQK 299	
*:*****:*.**:*.**:.* *****:*****:*****:*****:*****:*****:		
human	ALKLLTTGRE 307	
mouse	ALRLLTTGRE 309	
:**		

Fig. 19

11/19

10/527788

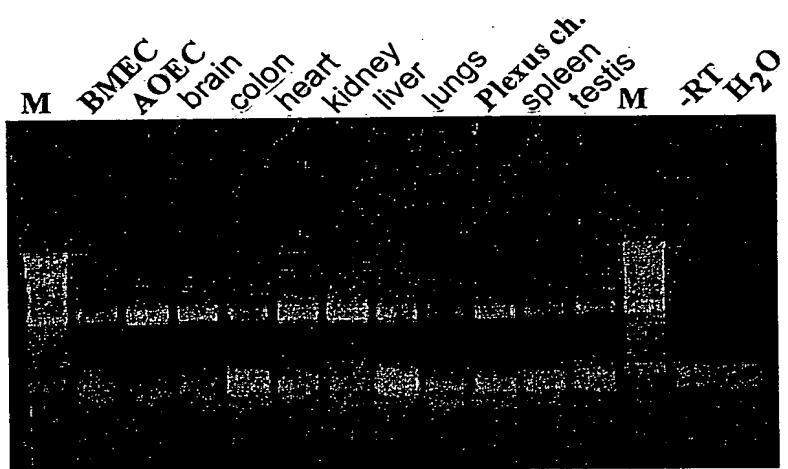


Fig. 20

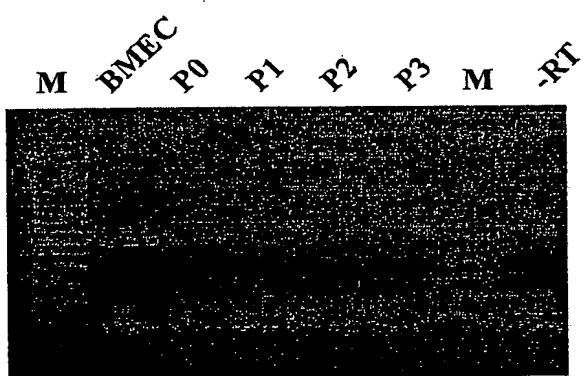


Fig. 21

MAAPEPLRPR	LCRLVRGEQG	YGFHLHGEKG	RRGQFIRRVE	PGSPAEEAAL
AGDRLVEVNG	VNVEGETHQ	VVQR I KAVEG	QTRILLVVDQE	TDEELRRRQL
TCTEEMAQRG	LPPAHDPWEP	KPDWAHTGSH	SSEAGKKDVS	GPLRELRPRL
CHLRKGPOGY	GFLNLHSDKSR	PGQYI RSVDP	GSPAARSGLR	AQDRLLIEVNG
QNVEGLRHAE	VVASIKARED	EARLLVVDPPE	TDEHFKRLRV	TPTEEHVEGP
LPSPTVNGTS	PAQLNGGSAC	SSRSDLPGSD	KDTEDEGSAWK	QDPFQESGLH
LSPTAAEARR	RLEPCESTSA	RHRWTGTGSV	KSSATSEPLP	ACLGTLGPLP
HGPWASACPE	LPQPQWTGGW	SCHCPEISPS	PGEPPSCPCP	PGTGGLWQQD
RGRETQRcer	ESETETERER	ERHRERQRES	ERARGSGAR	AFAALPGPAD

Fig. 22

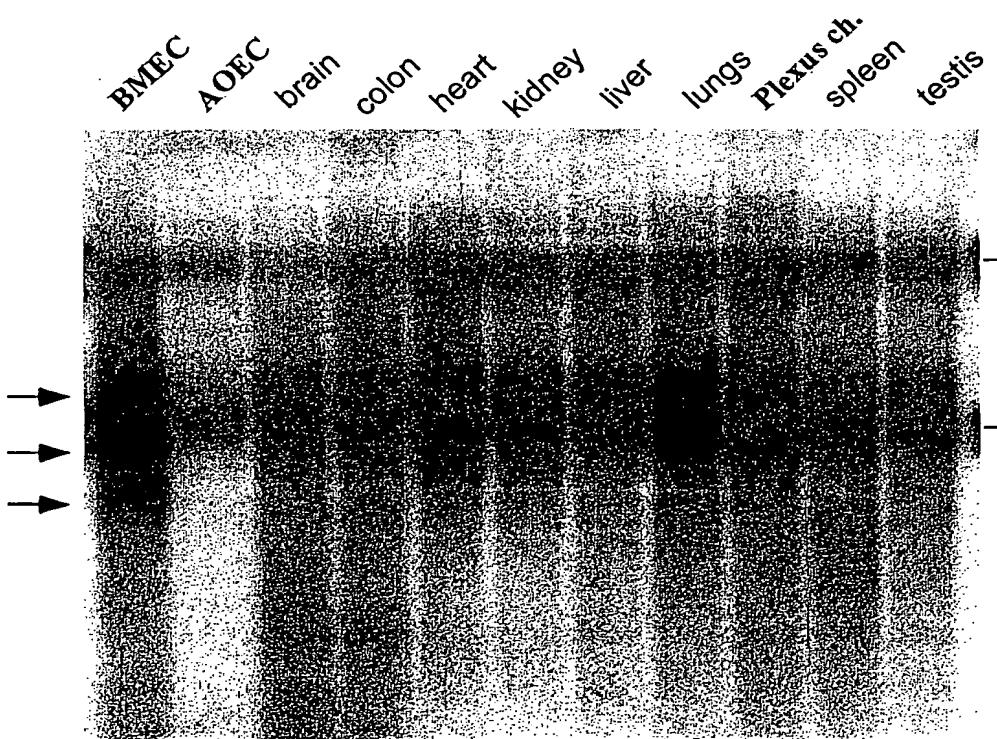


Fig. 23

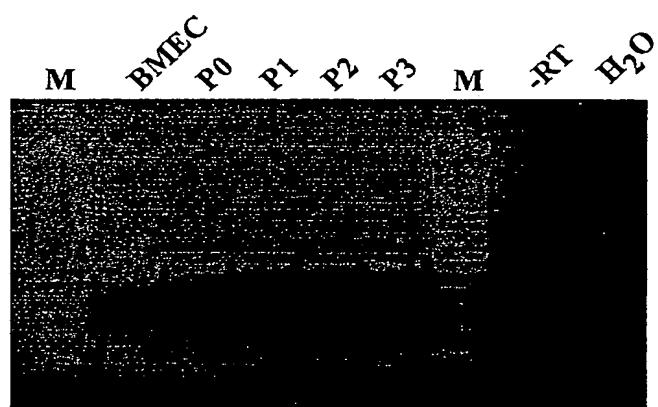


Fig. 24

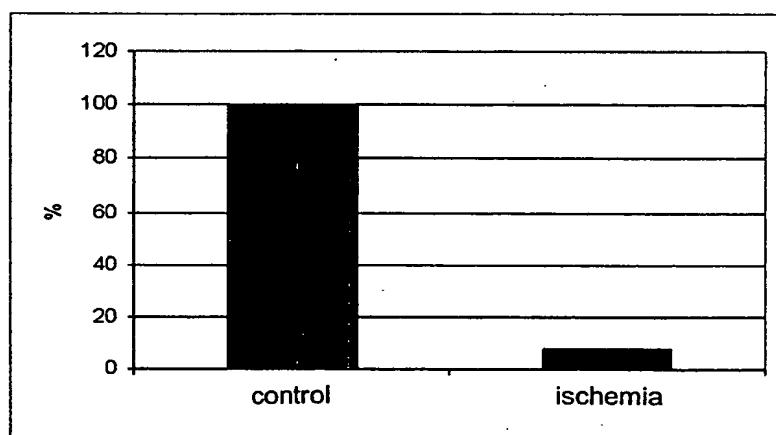


Fig. 25

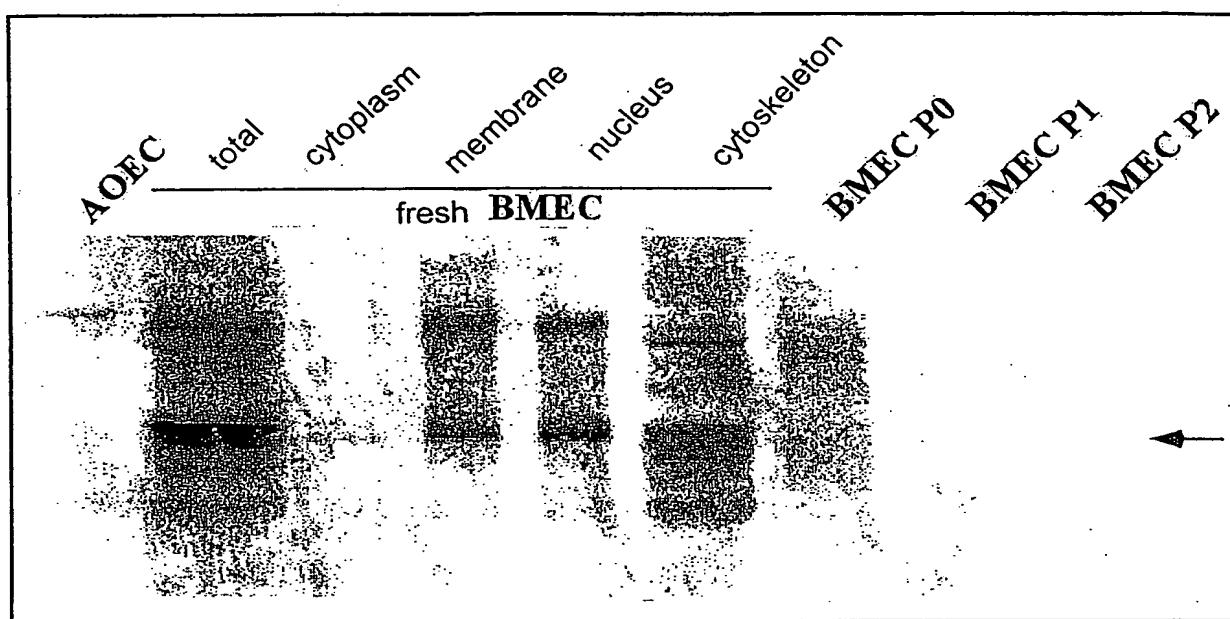


Fig. 26

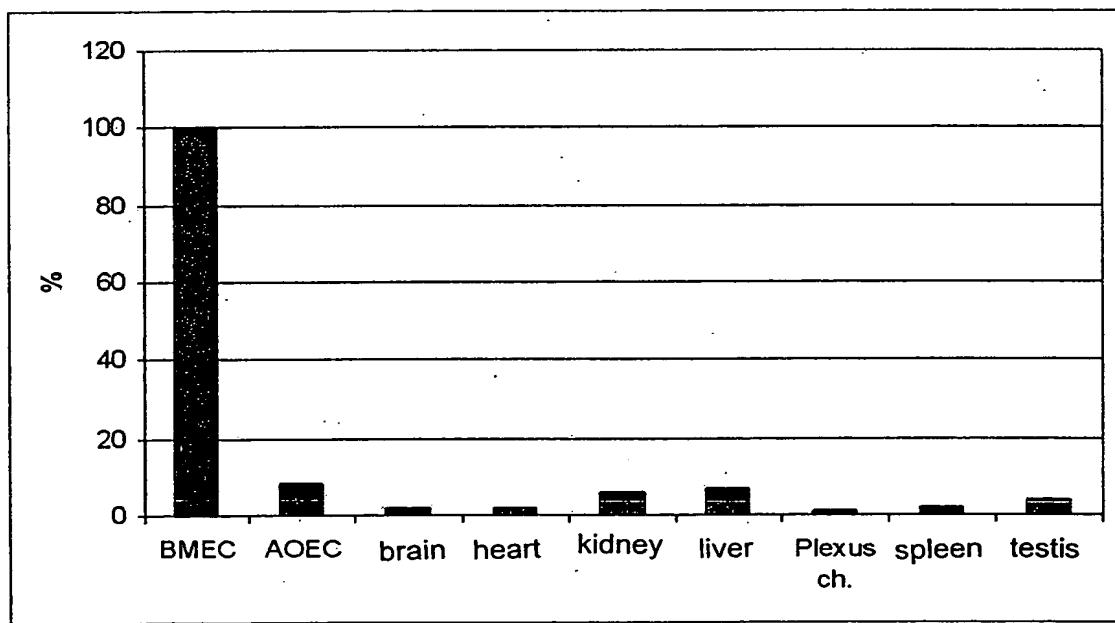


Fig. 27

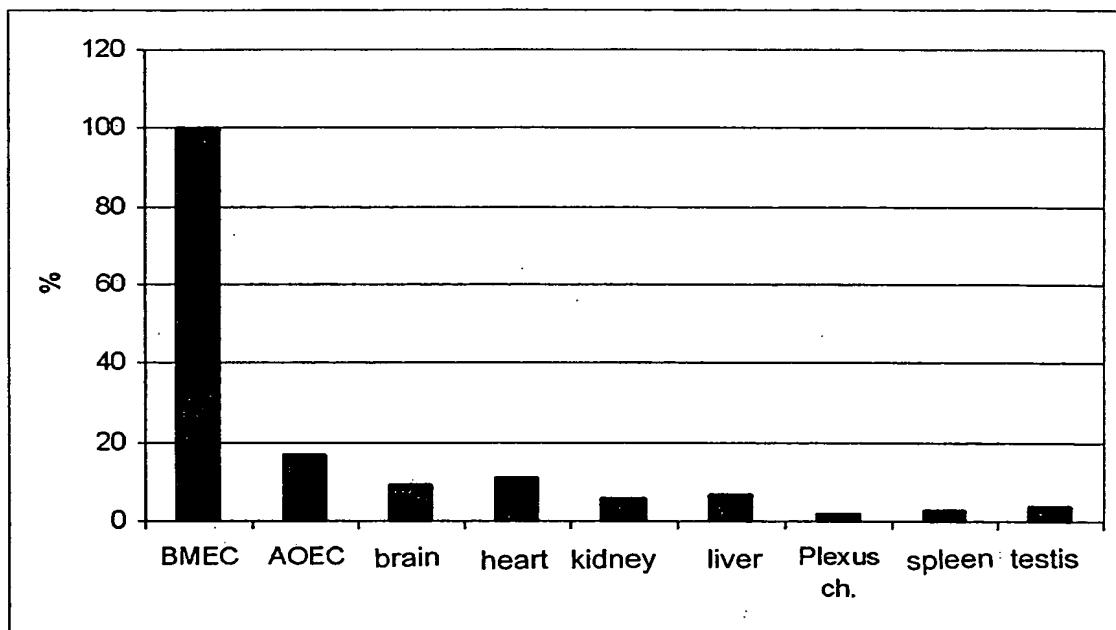


Fig. 28

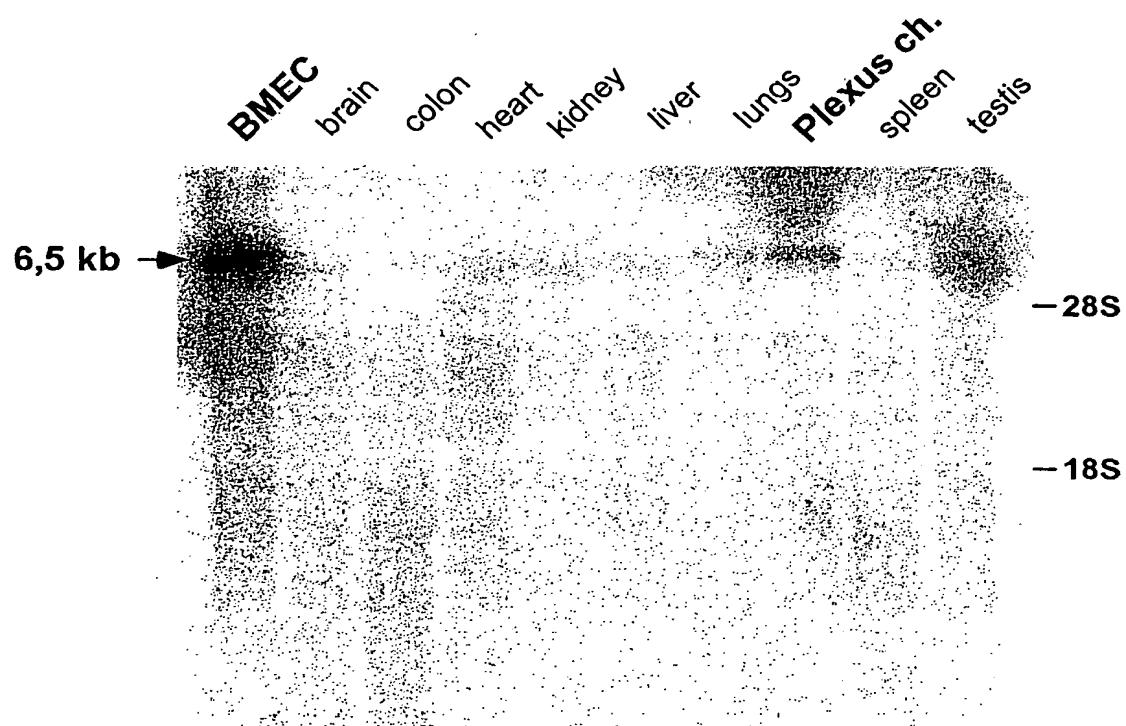


Fig. 29

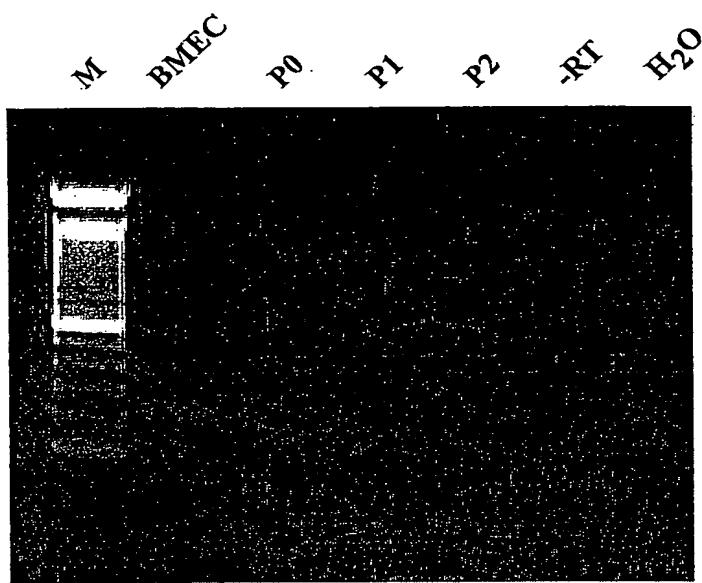


Fig. 30

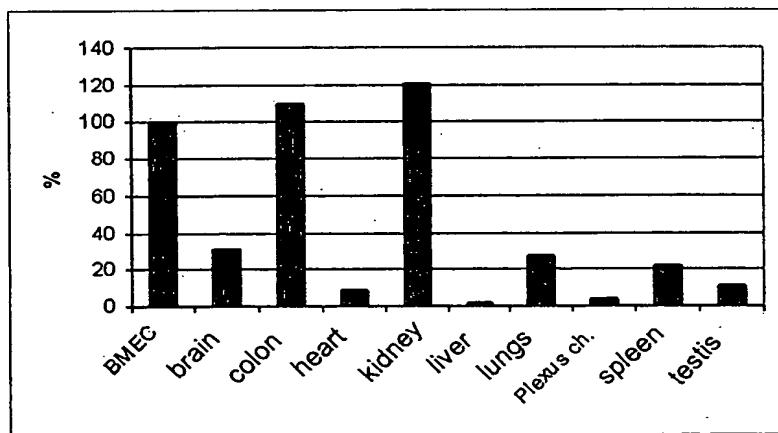


Fig. 31

HSNOV1: 48 MLSLCICGTAITSQYLAERYKVNTPMLQSFINYCLLFLIYTVMALFRSGSDNLLVILKRK 107
 MLSLCICGTAITSQYLAE+YKVNTPMLQSFINYCLLFLIYT+MLAF+SG++NLL ILK+K
 PNOV1: 1 MLSLCICGTAITSQYLAEKYKVNTPMLQSFINYCLLFLIYTMMMLAFQSGNNNLLCILKKK 60

 HSNOV1: 108 WWKYILLGLADVEANYVIVRAYQYTTLTSVQLLDCFGIPVLMALSWFILHARYRVIHFIA 167
 WWKYILLGLADVEANY+IVRAYQYTTLTSVQLLDCFGIPVLMALSWFIL+ARYRVIHFIA
 PNOV1: 61 WWKYILLGLADVEANYLIVRAYQYTTLTSVQLLDCFGIPVLMALSWFILYARYRVIHFIA 120

 HSNOV1: 168 VAVCLLGVTMVGADILAGREDNSGSDVLIGDILVLLGASLYAISNVCEEYIVKKLSRQE 227
 VAVCLLGVTMVGADILAGREDNSGSDVLIGD+LVLLGASLYA+SNVCEEYIVKKLSRQE
 PNOV1: 121 VAVCLLGVTMVGADILAGREDNSGSDVLIGDVLVLLGASLYAVSNVCEEYIVKKLSRQE 180

 HSNOV1: 228 FLGMVGLFGTIISGIQLLIVEYKDIASIHWWDWKIALLFVAFALCMFCLYSFMPPLVIKVT 287
 FLGMVGLFGTIISGIQLLIVEYKDIASIHWWDWKIALLFVAFALCMFCLYSFMPPLVIKVT
 PNOV1: 181 FLGMVGLFGTIISGIQLLIVEYKDIASIHWWDWKIALLFVAFALCMFCLYSFMPPLVIKVT 240

 HSNOV1: 288 ATSVNLGILTADLYSLFVGFLFGYKFSGLYILSFTVIMVGFILYCSTPTRTAEPAESSV 347
 ATSVNLGILTADLYSLF GLFLFGYKFSGLYILSF VIMVGFILYCSTPTRTAEPAESSV
 PNOV1: 241 ATSVNLGILTADLYSLFFGLFLFGYKFSGLYILSFAVIMVGFILYCSTPTRTAEPAESSV 300

 HSNOV1: 348 -PPVTSIGIDNLGLKLEENLQETHSAVL 374
 PPVTSIGIDNLGLKLEENL ETHS L
 PNOV1: 301 PPPVTSIGIDNLGLKLEENLPETHSVAL 328

Fig. 32

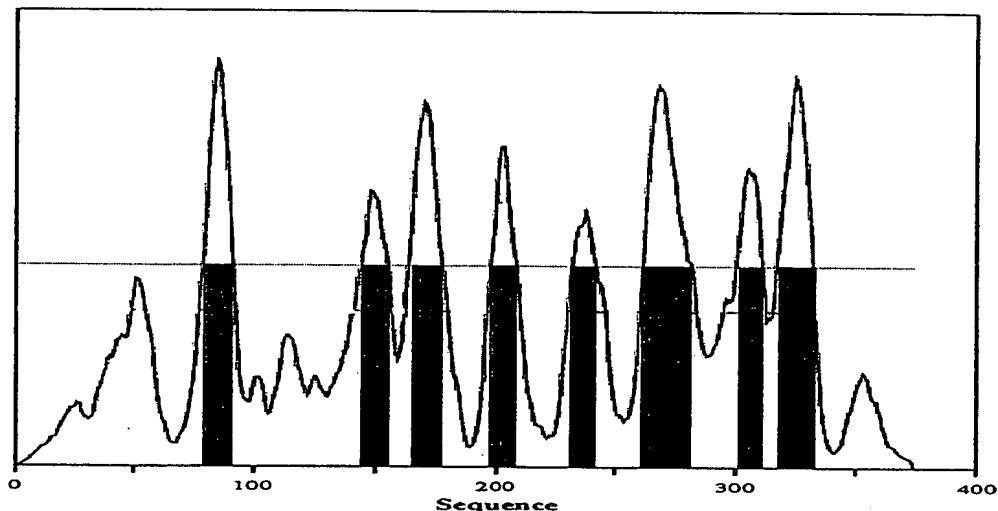


Fig. 33

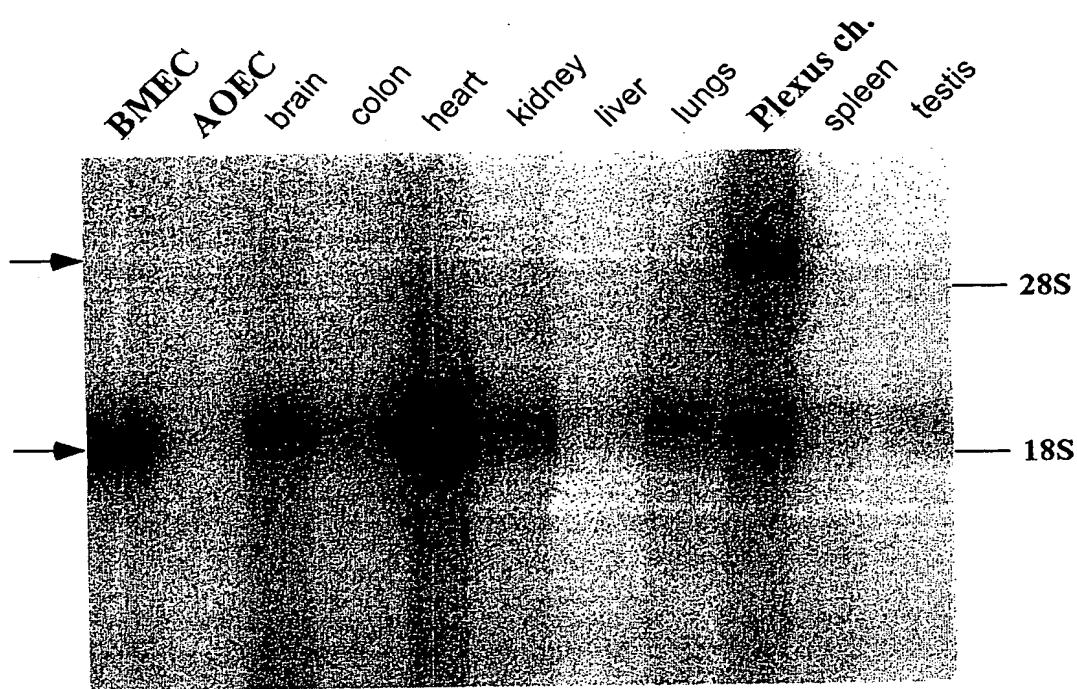


Fig. 34

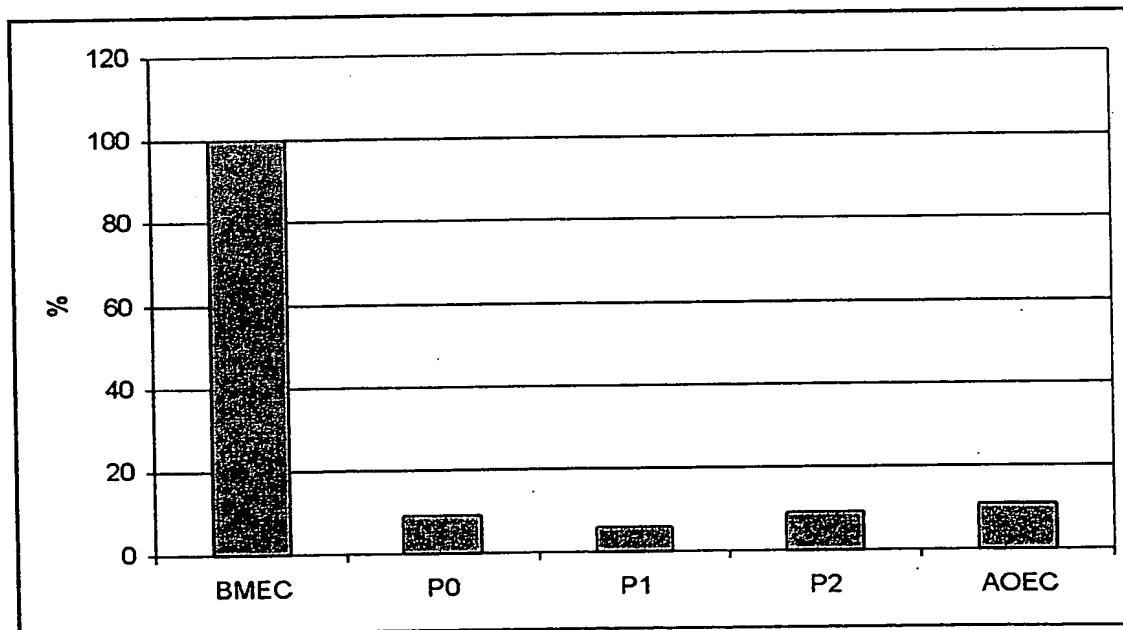


Fig. 35

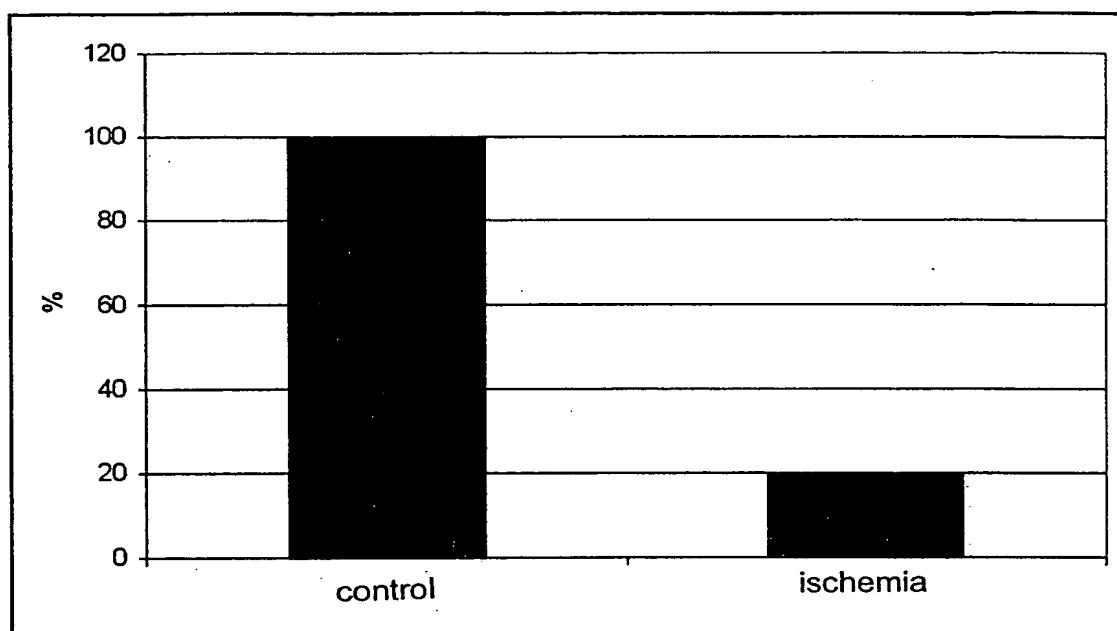


Fig. 36

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